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EXAMINER

STEVENS, ROBERTA A

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/524,476

Applicant(s)

POSTHUMA, CARL ROBERT

Examiner

Roberta A Stevens

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-9, 11, 13-17, 20-27, and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chellali (U.S. 6201830 B1) in view of Mueller (U.S. 6052411).
3. Regarding claims 1, Chellali teaches (figure 4) a system for providing data communications between a first DSL data device and a network switch comprising: a pilot branch for communicating with the first data device via pilot signals when the data device is in a sleep mode (column4, lines 26-53); a data branch for providing data communications between the first data device and the network switch when the first data device is active (column 4, lines 54-67).
4. Chellali does not teach a controller circuit for monitoring the pilot signals and for switching the first DSL data device from the pilot branch to the data branch when the first DSL data device becomes active based on the pilot signal.
5. Mueller teaches a controller circuit for monitoring the pilot signals and for switching the first DSL data device from the pilot branch to the data branch when the first DSL data device becomes active based on the pilot signal (figure 6). It would have been obvious to one of ordinary skill in this art to adapt to Chellali's system Mueller's monitoring circuit for detecting active status of the DSL data device using pilot signals to maintain a synchronous system.

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6. Regarding claims 2, 14, 24 and 33, both Chellali (abstract) and Mueller (abstract) teach DSL communications.

7. Regarding claims 3, 15, 25 and 34, Chellali (abstract) teaches ADSL.

8. Regarding claims 4, 16, 26 and 35, as for ADSL lite, it would have been obvious to one of ordinary skill in the art to adapt to Chellali and Mueller's system as it is well known in the art.

9. Regarding claim 5, as mentioned above Chellali in view of Mueller teaches all of the limitation of claim 1.

10. Chellali and Mueller do not teach a crosspoint device for switching the a second DSL data device from the data branch to the pilot branch when the first DSL data device is switched from the pilot branch to the data branch in response to the controller; and wherein the controller circuit monitors operations of the second data device and, based on the monitored operation, instructs the crosspoint device to switch the second data device. However, it would have been obvious to one of ordinary skill in the art to adapt to Chellali and Mueller's system additional DSL devices to accommodate more data.

11. Regarding claim 6, Chellali and Mueller do not teach the controller circuit detects when the second DSL data device is inactive and instructs the crosspoint device to switch the second DSL data device from the data branch to the pilot branch when the second DSL data device is inactive. . However, it would have been obvious to one of ordinary skill in the art to adapt to Chellali and Mueller's system additional DSL devices to accommodate more data.

12. Regarding claim 7, Chellali teaches (figure 4) a receiver grid for switching data communications received from the first DSL data device to the network switch from the pilot branch to the data branch; and a transmit grid for switching data communications transmitted from the network switch to the first DSL data device from the pilot branch to the data branch (column4, lines 26-53).

13. Regarding claim 8, Chellali does not teach instructing the receiver grid and the transmit grid to switch the data communications based on the pilot signals.

14. Mueller teaches instructing the receiver grid and the transmit grid to switch the data communications based on the pilot signals (figure 6). It would have been obvious to one of ordinary skill in this art to adapt to Chellali's system Mueller's monitoring circuit for detecting active status of the DSL data device using pilot signals to maintain a synchronous system.

15. Regarding claims 9, 11 and 32, Mueller teaches (abstract) using single tone pilot signals.

16. Regarding claim 13, Chellali teaches (figure 4) a XDSF transmitter for transmitting the data communications from the communication interface to the interface circuit; and a XDSL receiver for receiving the data from the interface circuit via the communications interface.

17. Regarding claim 17, Chellali teaches (abstract) high speed DSL communications.

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18. Regarding claim 20, Chellali does not teach a pilot branch for communicating to inactive DSL data devices; and connecting the inactive DSL data devices to the pilot branch.

19. Mueller teaches (figure 6) a pilot branch for communicating to inactive DSL data devices; and connecting the inactive DSL data devices to the pilot branch. It would have been obvious to one of ordinary skill in this art to adapt to Chellali's system Mueller's pilot branch for communicating to inactive DSL data devices; and connecting the inactive DSL data devices to the pilot branch to maintain a synchronous system.

20. Regarding claim 21, Mueller teaches (figure 6) the pilot branch communicates with the inactive DSL devices through pilot signals; and monitoring the pilot signals to detect when each of the DSL devices is active or inactive.

21. Regarding claim 22, Chellali teaches (figure 4) detecting whether the DSL devices are inactive and switching those to the pilot branch.

22. Regarding claim 23, Mueller teaches (column 4, lines 40-45) each of the DSL devices transmits a wake-up signal when changing from inactive to active (Mueller's exit symbol is read to mean the same as a wake-up signal since it is sent when a change from idle to active has occurred); the DSL device is connected to the data branch in response to the wake-up signal.

23. Regarding claim 27, Chellali teaches (figure 4) a detector for detecting when communication signals are transmitted from inactive DSL devices; and a switch (SW1) for connecting the inactive DSL devices to the data branch (column 4, lines 26-67).

Claim Rejections - 35 USC § 102

24. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

25. Claims 18, 19, 28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Chellali.

26. Regarding claims 18, Chellali teaches (figure 4) a system for selectively establishing data communications between a plurality of DSL data devices and a network switch comprising a data branch for establishing the data communications between one or more of the data devices and the network switch; and a controller circuit for detecting when each of the data devices is active or inactive and for connecting active ones of the data devices to the data branch (column 4, lines 26-67).

27. Regarding claim 19, Chellali teaches (column 4, lines 26-53) disconnecting the inactive DSL data devices from the data branch.

28. Regarding claims 28, Chellali teaches (figure 4) a method for providing data communications between a DSL data device and a network interface comprising; detecting when

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the data is active; connecting the data device to a data branch to establish data communications between the active data device and the network interface (column 4 line 54-67)

29. Regarding claim 29, Chellali teaches (figure 4) detecting when the DSL data device is inactive; and disconnection the inactive data device from the data branch (column 4, lines 26-53).

30. Claims 10, 12, 30, 31 and 36-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Mueller.

31. Regarding claims 10, Mueller teaches (figure 6) a system for routing data transmitted over a subscriber line that couples a communication interface and an interface circuit comprising: a pilot circuit transmitter for transmitting a pilot signal to the communication interface; a crosspoint circuit for receiving a wake up signal (Mueller's exit symbol is read to mean the same as a wake-up signal since it is sent when a change from idle to active has occurred, column 4, lines 40-45) in response to the pilot signal from the interface circuit; and a controller for determining a route of the wake-up signal and for instructing the crosspoint circuit to transmit the wake-up signal in accordance with the determined route (columns 2, lines 35 – column 3, line 33)

32. Regarding claims 12, Mueller teaches (figure 6) a data branch for switching data communications between the communications interface and the circuit; and the controller

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connects the crosspoint circuit to transmit the wake-up signal to data branch to establish the data communications.

33. Regarding claim 30, Mueller teaches (figure 6) connecting the inactive DSL data devices to the pilot branch..

34. Regarding claim 31, Mueller teaches (figure 6) communicating pilot signals between the inactive DSL device and the pilot branch (604); and monitoring the pilot signals to determine when the inactive DSL device becomes active (606, 610).

35. Regarding claim 36, Mueller teaches (figure 6) detecting when a wake-up signal is transmitted between the data branch and the DSL device to indicate that data communication should be established (Mueller's exit symbol is read to mean the same as a wake-up signal since it is sent when a change from idle to active has occurred, column 4, lines 40-45).

36. Regarding claims 37 and 38, a wake-up signal (as in claim 36) is interpreted as a signal sent indicating that there is data to be sent which is read on as the same as Mueller's exit symbol.

37. Regarding claim 39, Mueller teaches (figure 6) the first DSL device employs only the pilot branch while in sleep mode; and employs only the data branch while in active ode.

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38. Regarding claim 40, Mueller teaches (figure 6) the pilot circuit transmits the pilot signal only while in sleep mode.

Conclusion

39. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

40. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

41. Any inquiry concerning the communication or earlier communications from the examiner should be directed to Roberta Stevens whose telephone number is (703) 308-6607. The examiner can normally be reached on Monday through Friday from 9:00 am to 5:30 p.m.

42. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor can be reached on (703) 308-6602.

43. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305-3900.

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44. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks


Washington, D.C. 20231

or faxed to: (703) 872-9306

For informal draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA. Sixth Floor (Receptionist).

Roberta A. Stevens
Patent Examiner
02-06-04



STEVEN H.D NGUYEN
PRIMARY EXAMINER